Empirical Exercise 1: Per-capita Exports by Broad Sector

August 4, 2022

Instructor: Marc-Andreas Muendler   muendler@ucsd.edu
Teaching Assistant: Carlos Bezerra de Góes   cbezerra@ucsd.edu

Due date and time: **August 12, 4:50pm**

Inputs and products

Please use Stata (any version) for your work. Please base your analysis on the following two data files

ITPD-E by USITC	`itpd.dta`
WDI 2016	`wdi16.dta`

in the respective online data folders `https://econweb.ucsd.edu/muendler/teach/22x/101/gen` and `https://econweb.ucsd.edu/muendler/teach/22x/101/lec01`.

You may find the code from first lecture a useful reference: *lec01.do* in the online lecture folder `https://econweb.ucsd.edu/muendler/teach/22x/101/lec01`.

Please submit three products to `canvas.ucsd.edu` by the due time (**no late submission accepted**): (i) a file with results and your verbal summary titled *ee01.pdf*, (ii) a log file titled *ee01.log*, and (iii) a Stata code file titled *ee01.do*. **Your log file must exhaustively document the steps from the above input files to the output of results.**

Tasks

1. Preliminaries.

   (a) Follow the data preparation steps for the year 2016 and cross-border trade as in Lecture 1 (*lec01.do*), with two exceptions:
   - Do not prepare the WDI data for 2016 again; use the ready data `wdi16.dta` from `https://econweb.ucsd.edu/muendler/teach/22x/101/lec01` instead (as does the code in *lec01.do*).
   - When aggregating (collapsing) the ITPD-E data, go to the combined exporter-sector level using the command `collapse (sum) exports=trade, by(exporter_* broad_sector) fast`.
     Note: When you subsequently left-join (merge) the WDI data for 2016 onto the ITPD-E data, make sure that you choose `merge n:1 ....` When you subsequently left-join (merge) the combined ITPD-WDI data for 2016 onto the geodesic data, make sure that you choose `merge 1:n ....` Also make sure that you include `broad_sector` with the `keepusing()` option.

2. Graphs for the year 2016 and cross-border trade.

   - Graph exports per capita on a world map for each of the four broad sectors, producing four separate graphs—one for agriculture, one for mining/energy, one for manufacturing, and one for services.

Hint: If you are unhappy with omitted countries from your maps, especially for services trade, the cause are missing observations from ITPD-E (not missing values). To fill in missing ITPD-E observations, you can insert the following code before you finalize the ITPD data set:

```
encode iso_a3, generate(ctry_num) label(iso_a3)
xtset broad_sector ctry_num
tsfill, full
decode ctry_num, generate(_iso_a3)
replace iso_a3 = _iso_a3 if iso_a3==""
drop _iso_a3 ctry_num
```